

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference NG/20734A	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/05201	International filing date (day/month/year) 02.12.2003	Priority date (day/month/year) 02.12.2002
International Patent Classification (IPC) or both national classification and IPC E21B41/00		
Applicant SMITH INTERNATIONAL, INC. et al.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 1 sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 25.06.2004	Date of completion of this report 22.11.2004
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/05201

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-19 as originally filed

Claims, Numbers

2-32 as originally filed
1 received on 27.10.2004 with letter of 27.10.2004

Drawings, Sheets

1/14-14/14 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-32
	No: Claims	
Inventive step (IS)	Yes: Claims	1-32
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-32
	No: Claims	

2. Citations and explanations

see separate sheet

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Although claims 1 and 30 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

V - Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The document **D1: EP-A-0 792 997** is regarded as being the closest prior art to the subject-matter of **claim 1**, and shows (the references in parentheses applying to this document) a downhole tool for controlling tool access to a lateral wellbore, the downhole tool comprising a body incorporating a wall provided with an opening extending therethrough, whereby a slidable access control device is provided, said control device actuatable with a shifter, to control access to the opening; and whereby a deflector device is coupled to the shifter to deflect the tool into the opening.

The subject-matter of **claim 1** differs from this known **D1** in that a deflector member is slidably mounted in the body and having a deflecting surface for deflecting, in use, downhole equipment laterally within the body, the deflector member being slidable between an open position, in which the deflecting surface is located adjacent and facing towards said body opening so that, in use, downhole equipment laterally deflected by the deflecting surface is directed through said body opening, and a closed position, in which the deflector member is orientated relative to said body opening so as to prevent downhole equipment from being laterally deflected through said body opening during use; and constraining means for restricting movement of the deflector member relative to the body.

The subject-matter of **claim 1** is therefore new (Article 33(2) PCT).

It can be seen therefore that the tool of **D1** includes three separate parts (the access control device, the actuatable shifter and the deflector device) in order to provide the same features as the single device of **claim 1** which is a deflector slidably mounted in a tubular body. As the problem to be solved by the present invention may be regarded as providing a much simpler and more robust device for allowing access and deflecting a tool into a lateral wellbore and as none of the other available prior art documents discloses a similar device, said claim is also considered to meet the requirements of

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Article 33(3) PCT with respect to inventive step.

Claims 2 to 29 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Independent claim 1 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in this document is not mentioned in the description, nor is this document identified therein.

10/530486

JC13 Rec'd PCT/PTO 06 APR 2005

PROPOSED NEW CLAIM:

1. A downhole deflector tool for selectively opening and closing a lateral borehole extending from a primary borehole, the downhole tool comprising a body incorporating a wall provided with an opening extending therethrough; and a hollow tubular deflector member slidably mounted in the body and having a deflecting surface for deflecting, in use, downhole equipment laterally within the body, the deflector member being slidable between an open position, in which the deflecting surface is located adjacent and facing towards said body opening so that, in use, downhole equipment laterally deflected by the deflecting surface is directed through said body opening, and a closed position, in which the deflector member is oriented relative to said body opening so as to prevent downhole equipment from being laterally deflected through said body opening during use; and constraining means for restricting movement of the deflector member relative to the body.

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